Docket No.

249325US0

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

Yoshiaki KOBUKE, et al.

SERIAL NO: New Application

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GAU:

FILED:

Herewith

**EXAMINER:** 

FOR:

ELEMENT HAVING PORPHYRIN POLYMER FIXED ON A SUBSTRATE AND METHOD OF PREPARING

THE SAME

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

### REFERENCES

- The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

#### RELATED CASES

- Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

### **CERTIFICATION**

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- □ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

## **DEPOSIT ACCOUNT**

Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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# LIST OF RELATED CASES

Docket Number	Serial or Patent Number	Filing or <u>Issue Date</u>	Inventor/ Applicant
204568US0	6,602,998	08/05/03	KOBUKE, et al.
227648US0	10/231,074	08/30/02	KOBUKE, et al.
236856US0	10/419,767	04/22/03	KOBUKE, et al.
245682US0	10/715,493	11/19/03	KOBUKE, et al.

DOCKET NO.: 249325US0

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SERIAL NO: New Application

FILED: HEREWITH

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AND METHOD OF PREPARING THE SAME

## **STATEMENT OF RELEVANCY**

## Reference AE on Form PTO-1449:

This reference is mentioned in the specification on page 2, lines 7-8.

## Reference AF on Form PTO-1449:

This reference is mentioned in the specification on page 2, lines 11-13.

## References AG through AI on Form PTO-1449:

These references are mentioned in the specification on page 2, lines 16-21.

## References AJ through AL on Form PTO-1449:

These references are mentioned in the specification on page 3, lines 1-5.

### Reference AM on Form PTO-1449:

This reference is mentioned in the specification on page 3, lines 12-13.

### Reference AN on Form PTO-1449:

This reference is mentioned in the specification on page 4, lines 10-11.

## Reference AQ on Form PTO-1449:

This reference is mentioned in the specification on page 5, lines 1-2.

## Reference AR on Form PTO-1449:

This reference is mentioned in the specification on page 6, lines 7-8.

Form PTO 1449 U.S. DEPARTMENT OF COMMERCE		ATTY DOCKET NO.		SERIAL NO.								
(Modified) PATENT AND TRADEMARK OFFICE			249325US0	New Application								
1				APPLICANT								
LIST OF REFERENCES CITED BY APPLICANT			Yoshiaki KOBUKE, et al.									
			FILING DATE	GROUP								
			Herewith									
U.S. PATENT DOCUMENTS												
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS						
	AA	6,429,310	08/06/2002	Yoshiaki KOBUKE, et al.								
	AB	6,602,998	08/05/2003	Yoshiaki KOBUKE, et al.								
	AC											
FOREIGN PATENT DOCUMENTS												
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO							
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	AE	Katsuhiko ARIGA, et al., "ASSEMBLING ALTERNATE DYE-POLYION MOLECULAR FILMS BY ELECTROSTATIC LAYER-BY-LAYER ADSORPTION", J. Am. Chem. Soc., Vol. 119, 1997, pgs. 2224-2231										
	AF	Dong-Jin QIAN, et al., "PALLADIUM-MEDIATED STEPWISE ASSEMBLY OF THREE-DIMENSIONAL ORGANIZED MULTIPORPHYRIN ARRAYS DIRECTLY ON SOLID SUBSTRATES", Langmuir, Vol. 18, 2002, pgs. 10237-10242										
	AG	Koiti ARAKI, et al., "LAYER-BY-LAYER GROWTH OF ELECTROSTATICALLY ASSEMBLED MULTILAYER PORPHYRIN FILMS", Langmuir, Vol. 12, 1996, pgs. 5393-5398										
	АН	Feras B. ABDELRAZZAQ, et al., "PHOTOCURRENT GENERATION IN MULTILAYER ORGANIC-INORGANIC THIN FILMS WITH CASCADE ENERGY ARCHITECHTURES", J. Am. Chem. Soc., Vol. 124, 2002, pgs. 4796-4803										
	Al	Atsushi IKEDA, et al., "EFFICIENT PHOTOCURRENT GENERATION IN NOVEL SELF-ASSEMBLED MULTILAYERS COMPRISED OF [60]FULLERENE-CATIONIC HOMOOXACALIX[3]ARENE INCLUSION COMPLEX AND ANIONIC PORPHYRIN POLYMER", J. Am Chem. Soc., Vol. 123, 2001, pgs. 4855-4856										
	AJ	Frank J. KAMPAS, et al., "PORPHYRIN FILMS. 3. PHOTOVOLTAIC PROPERTIES OF OCTAETHYLPORPHINE AND TETRAPHENYLPORPHINE", The Journal of Physical Chemistry, Vol. 81, No. 8, 1977, pgs. 690-695										
	AK	F. J. KAMPAS, et al., "PHOTOELECTROCHEMICAL PROPERTIES OF METALLOPORPHYRINS", Nature, Vol. 284, March 6, 1980, pgs. 40-42										
	AL	Yutaka HARIMA, et al., "ORGANIC PHOTOELECTRODES BASED ON P-P ISO-TYPE JUNCTIONS", The Journal of Physical Chemistry, Vol. 89, No. 25, December 5, 1985, pgs. 5325-5327										
	АМ	Yoshiaki KOBUKE, et al., "SUPRAMOLECULAR ORGANIZATION OF IMIDAZOLYL-PORPHYRIN TO A SLIPPED COFACIAL DIMER", J. Am. Chem. Soc., Vol. 116, 1994, pgs. 4111-4112										
	AN	The gist of lecture 2-2 at 82 <sup>th</sup> Symposium on Organic Synthesis, Japan, 2002, pgs. 65-68										
	AO	Atsushi OHASHI, et al., "COVALENT LINKING OF COORDINATION-ORGANIZED SLIPPED COFACIAL PORPHYRIN DIMERS", Bull. Chem. Soc. Jpn., Vol. 77, 2004, pgs. 365-374 (corresponds to reference AN listed above)										
	AP	Chusaku IKEDA, et al., "PROOFS OF MACROCYCLIZATION OF GABLE PORPHYRINS AS MIMICS OF PHOTOSYNTHETIC LIGHT-HARVESTING COMPLEXES", Organic Letters, Vol. 5, No. 26, 2003, pgs. 4935-4938 (corresponds to reference AN listed above)										
	AQ	Kazuya OGAWA, et al., "FORMATION OF A GIANT SUPRAMOLECULAR PORPHYRIN ARRAY BY SELF-COORDINATION", Angew. Chem. Int. Ed., Vol. 39, No. 22, 2000, pgs. 4070-4073										
,	AP			CURRENT GENERATION SYSTEM  IA FUNCTION', Chem. Commun., 2002,  Additional References sheet(s) attached								
Examiner					Date Co	nsidered						
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